

WE CLAIM:

1. A negative selection method for enriching and recovering desired cells in a sample containing the desired cells, erythrocytes and undesired cells comprising:

- (1) contacting the sample with an antibody composition comprising (a) at least one antibody that binds to an antigen on the undesired cells linked, either directly or indirectly, to (b) at least one antibody that binds to the erythrocytes, under conditions to allow immunorosettes of the undesired cells and the erythrocytes to form; and
- (2) separating the immunorosettes from the sample to obtain a sample enriched in the desired cells.

2. A method according to claim 1 wherein the immunorosettes are separated in step (2) by density separation.

3. A method according to claim 1 wherein the immunorosettes are separated in step (2) by sedimentation.

4. A method according to claim 1 for the enrichment and recovery of non-hematopoietic cells wherein antibody (a) comprises antibodies capable of binding to the antigen (1) CD45; and (2) CD66b.

5. A method according to claim 4 wherein antibody (a) further comprises antibodies capable of binding to the antigen CD36.

6. A method according to claim 4 wherein antibody (a) further comprises antibodies capable of binding to the antigen CD2, CD16, CD19, CD36 and/or CD38.

7. A method according to claim 1 for the enrichment and recovery of non-hematopoietic tumor cells wherein antibody (a) comprises antibodies capable of binding to the antigen (1) CD45; and (2) CD66b.

5 8. A method according to claim 7 wherein antibody (a) further comprises antibodies capable of binding to the antigen CD36.

9. A method according to claim 7 for the enrichment and recovery of epithelial tumor cells.

10 10. A method according to claim 7 wherein antibody (a) further comprises antibodies capable of binding to the antigens CD2, CD16, CD19, CD36 and/or CD38.

15 11. A method according to claim 1 wherein the antibody (b) that binds to the erythrocyte is anti-glycophorin A.

12. A method according to claim 1 wherein the antibody composition comprises tetrameric antibody complexes comprising (a) an antibody that binds to the antigen on the undesired cells; and (b) an antibody that binds to the erythrocytes; and (c) two antibodies that bind to the Fc fragment of the antibodies defined in (a) and (b), wherein the antibodies in (a) and (b) are of the same animal species and the antibodies in (c) are of a different animal species from the antibodies in (a) and (b).

20 25 13. An antibody composition for enriching and recovering desired cells in a sample containing desired cells, erythrocytes and undesired cells comprising (a) at least one antibody that binds to an antigen on the undesired cells linked, either directly or indirectly to (b) at least one antibody that binds to the erythrocytes.

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14. A composition according to claim 13 for the enrichment and recovery of non-hematopoietic cells wherein antibody (a) comprises antibodies capable of binding to the antigen (1) CD45; and (2) CD66b.

5 15. A composition according to claim 14 wherein antibody (a) further comprises antibodies capable of binding to the antigen CD36.

10 16. A composition according to claim 14 wherein antibody (a) further comprises antibodies capable of binding to the antigens CD2, CD16, CD19, CD36 and/or CD38.

15 17. A composition according to claim 13 for the enrichment and recovery of non-hematopoietic tumor cells wherein antibody (a) comprises antibodies capable of binding to the antigen (1) CD45; and (2) CD66b.

18. A composition according to claim 17 wherein antibody (a) further comprises antibodies capable of binding to the antigen CD36.

20 19. A composition according to claim 17 wherein antibody (a) further comprises antibodies capable of binding to the antigens CD2, CD16, CD19, CD36 and/or CD38.

25 20. A composition according to claim 17 for the enrichment and recovery of epithelial tumor cells.